Key message The current suite of Marine Protected Areas (MPAs) in the Northern Ireland inshore region is very close to delivering an ecologically coherent network in Northern Ireland. The majority of MPA features of conservation interest are represented and replicated in the MPA network. A small number of features do not meet the network criteria benchmarks, but these shortfalls typically relate to replication or the amount of habitat protected.

Background
The UK Government and Devolved Administrations are committed to creating an ecologically coherent network of MPAs in UK waters. The most recent updates to the Northern Ireland inshore MPA network include the designation of four Marine Conservation Zones (MCZs) in December 2016, to supplement Strangford Lough MCZ (designated in 2013). North Channel, a candidate Special Area of Conservation (cSAC), was also added in early 2017, meaning there are now 48 MPAs, occupying 38% of the inshore region.

Considering these developments, the Department of Agriculture, Environment and Rural Affairs (DAERA) asked JNCC to assess the progress of the MPA network in the Northern Ireland inshore region against Northern Ireland’s marine conservation policy commitments.

Assessment
The progress of the Northern Ireland inshore MPA network was assessed using the benchmark criteria outlined in Figure 1. The assessment considers what Northern Ireland’s existing MPAs contribute to the protection of priority habitats and species, both in the Northern Ireland inshore region, and in the two biogeographic regions adjoining Northern Ireland: the Irish Sea region, and Minches & Western Scotland region. Furthermore, it considers whether there are any ecological gaps in the network that could be addressed by DAERA.
An unmet criterion is only considered an ecological gap if there is potential for the criteria to be met by seeking additional protection elsewhere. For example, if a feature is protected in one MPA only, but there is no known feature extent outside of the protected area, then replication is not possible. However, if the feature occurs in other unprotected areas, then replication is possible, and this would be considered an ecological gap.

**Key results**

- All broad-scale habitats, Priority Marine Feature (PMF) and proposed Marine Conservation Zone (pMCZ) species, and all but one PMF/pMCZ habitat are represented at least once.
- Seven of the 12 subtidal broad-scale habitats have greater than 10% of their total known extent protected in MPAs.
- Six of the 22 PMF/pMCZ habitats, and 19 of the 93 PMF/pMCZ species, are not yet replicated in the network.

**Conclusions**

The MPAs in the Northern Ireland inshore region make a substantial contribution to the MPA network in the wider Irish Sea and Minches & Western Scotland regions. Further protection of several broad-scale habitats and PMF/pMCZ habitats and species could reduce the size and/or number of ecological gaps at both the Northern Ireland and wider biogeographic scale, thereby improving the ecological coherence of the overall UK MPA network.

Further refinement of the assessment methodology, improved understanding of the distribution of features, future MPA designations and the implementation of MPA management measures may all affect the conclusions of this assessment.

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1 Black guillemot, common skate, European spiny lobster and a sea cucumber (*Paracucumaria hyndmani*)